



1997 Business Opportunities Fair

**Performance
Specifications and
Standards**

Mr. Michael Allen, Senior Vice President,
Center of Acquisition, Research, Technology and Education
(CARTE)



Objectives

- Present DoD and DoN performance specifications and standards policy
- Display the types of performance specifications and standards
- Display characteristics and an example of detail specifications
- Display examples of performance specifications and standards
- Explain the basics of DoD Single Process Initiative/Block Change Process
- Discuss impact of performance specifications and standards on small business



SECDEF Mandate for Change

- **New specifications and standards philosophy**
- **New specifications and standards priorities**
- **Discussion of revised specification and standards referencing policy/ chain referencing/ tiering**
- **Single Process Initiative/ Block Change**

Performance Specifications

Definition

A performance specifications states requirements in terms of the required results and provides criteria for verifying compliance, but it does not state methods for achieving results. It defines the functional requirements for the product, the environment in which it must operate, and the interface and interchangeability requirements.



Example of a Performance Specification

The missile transport shall be capable of achieving a highway speed of 55 mph fully loaded in an 11 mph head wind.





Detail Specification

- **Design Solutions**
- **How requirements are to be achieved**
- **How an item is to be fabricated**
- **How an item is to be constructed**

Note: A specification that contains both performance and detail requirements is a detail specification.



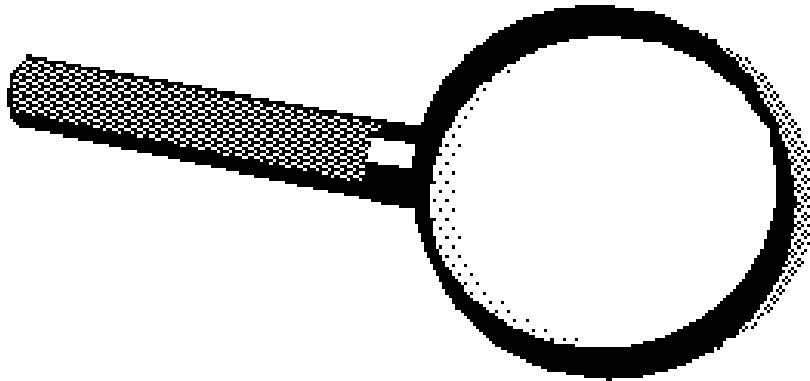
Example of a Detail Specification

The cloth shall consist of corrosion-resistant steel wires. Hose under 16Z shall have a single layer of braid, and hose 16Z and above shall have two layers of braid. The wires shall be arranged over the inner tube to provide sufficient strength to ensure conformance with the requirements specified herein.

Difference in Requirements

■ **Materials**

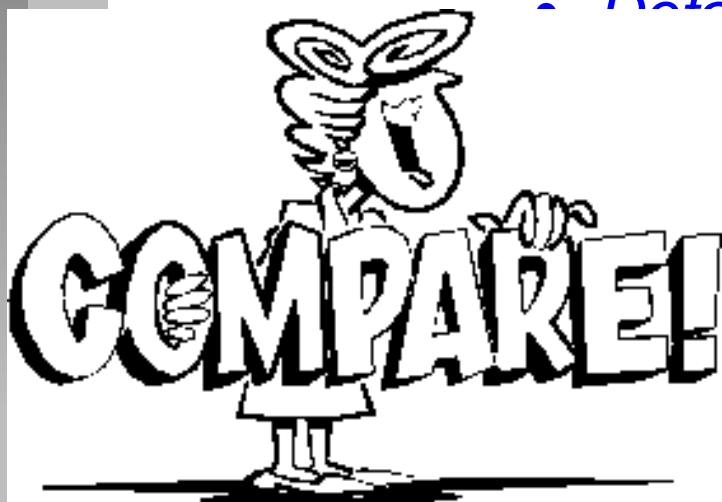
- *Performance specifications leave specifics to the contractor, but may require material characteristics, e.g., corrosion resistance.*
- *Detail specifications may require specific materials.*



Difference in Requirements, continued

■ Physical characteristics (size, weight, etc.)

- *Performance specifications give specifics only to the extent necessary for interface, interchangeability, environment in which item must operate, or human factors.*
- *Detail specifications may specify physical characteristics in excess of what is needed for interface, etc.*



Difference in Requirements, continued

- **Interface requirements –**
Should be similar for both types.
- **Design construction:**
 - *Performance specifications require desired outcomes, what the item must do, functions, and leave the specific design to the contractor.*
 - *Detail specifications may exact parts and components.*

Rewriting the Requirement

Detail Specification:

“Gaskets shall be fabricated from material conforming to ASTM D2000, grades 3AA510B13C12F17 or 3AA710B13C12F17.”

Performance Specification Rewrite:

“A means shall be provided to prevent the entrance of moisture into the interior of the flashlight or the contacts.”





Rewriting the Requirement, continued

Detail Specification:

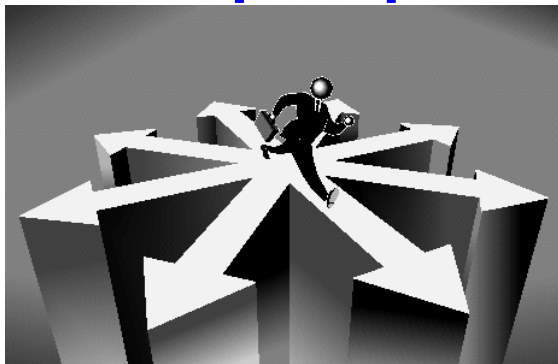
“The antenna shall be provided with a lightning arrester designed in accordance with MIL-A-9094.”

Performance Specification Rewrite:

“Lightening protection shall be incorporated in the antenna.”

Types of Performance Specifications

- **Non-Government Standards (Performance Type)**
- **Commercial Item Descriptions**
- **Performance Specifications (replacement of Mil-Specs that are written in performance terms)**
- **Guide Specifications**
- **Program-Unique Specifications**



Performance or Detail Spec?

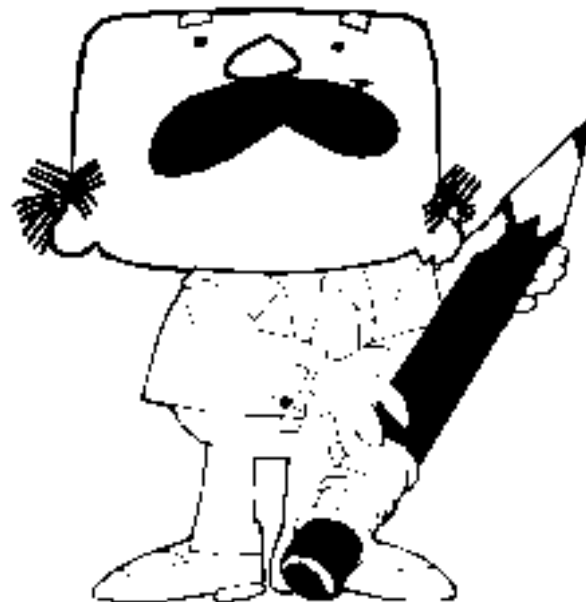
1. The circuit breaker shall not trip when subjected to the Class I, Type A, shock test specifies in MIL-S-901.
P ? or D ?
2. The binocular eyepiece shall operate at altitudes up to 10,000 feet above sea level.
P ? or D ?
3. The contractor shall have a quality program in accordance with Mil-Q-9858A.
P ? or D ?
4. The detector shall note contain foreign matter, such as, dust dirt, fingerprints, or moisture, that can be detected by visual examination.
P ? or D ?
5. The hose shall be designed and manufactures in accordance with NAVAIR Dwg. 12345. P ? or D ?

Performance or Detail Spec?

6. The tank shall be capable of traversing the Aberdeen Proving Ground Terrain Profile Course at all speeds up to 30 mph. P ? or D ?
7. The gross vehicle weight, including crew members, a full complement of main gun ammunition (55 rounds), and fuel sufficient to meet the 275 mile minimum range, shall be 18,780 pounds, nominal. P ? or D ?
8. Fluid seals and bearings shall provide a minimum of 5 years use without replacement. P ? or D ?
9. The vehicle shall accelerate on a dry, level, surface in the forward directions from 0 to 20 mph in 7 seconds, and in the reverse direction in 9 seconds. P ? or D ?
10. The equipment shall withstand, without change, temperatures ranging from -46 degrees C to +71 degrees C. P ? or D ?

Military Standards Definition

- Uniform engineering or technical criteria, methods, processes and practices.
- Satisfy multiple, military-unique applications



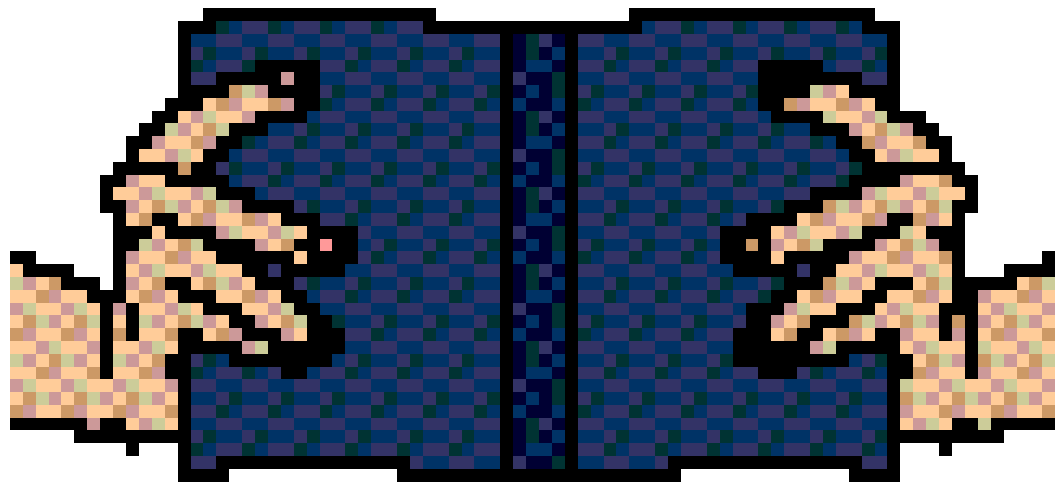
Five Types of Standards

- **Interface Standards**
- **Standards practice Standard**
- **Test method Standard**
- **Manufacturing process Standard**
- **Design criteria Standard**



Handbook

- Preserve institutional approaches
- Provide acquisition guidance
- Not requirements documents
- Use of selected portions



Non-Government Standards (NGS)

Definition:

- **Developed and published by non-Government standard body.**
- **Includes all of the different types of standards, e.g., standard practices, test methods, manufacturing process standards, etc.**





NGS Definition, continued

A consensus document developed by a private standards developing organization. Sometimes called a voluntary standard, private sector standard, or industry standard. Company standards are not non-government standards.



Include DoD Requirements

- **NGS are a means to an end – NOT the end**
- **Goal is to increase use of commercial products and processes**
- **Goal is NOT TO “militarize” NGS**



Single Process Initiative/Block Change Modification

■ **Problem:**

- *Contractors doing business with several different DoD organizations must comply with different process requirements placed upon them by these organizations for essentially the same process.*

■ **Solution:**

- *DoN supporting new DoD initiative is aimed at reducing the number of processes contractors are required to use in execution of contracts. Under SECDEF directed use of an expedited, streamlines, streamlined approach to issuing block changes.*

Single Process Initiative/Block Change Modification, continued

■ **Action:**

- *DoN provides a timely response to contractor proposals for establishing single processes on existing contracts. Administrative Contracting Officer (ACO) is the single point of contact for single process initiative at each contractor facility.*
- *Contractor initiates concept paper outlining process change and transition approach.*
- *A Management Council chaired by the Contract Administration Office, e.g., Defense Plant Representative Office, Supervisor of Shipbuilding, coordinate review of concept with principal plant customers. DoN Program Officers and buying activities represented by a single leader.*



Single Process Initiative/Block Change Modification, continued

■ **Action, continued:**

- *After agreement on concept, contractor submits proposals.*
- *DoD Management Council reviews proposals and Administrative Contracting Officer approves block change to existing contracts.*

MILSPEC Reform

- **Results of the first two years**





Specifications and Standards Tools

- **DoD Acquisition Deskbook (DAD)**
- **Market Research (I-Mart)**
- **Acquisition Streamlining and Standardization Information SysTem (ASSIST)**
- **SPECRITE for Windows**
- **Program Manager's Workstation (PMWS)**
- **Mil Std 961 D**
- **SD 51 (Performance Specification Guide)**
- **Specliner (In development)**



DoD Acquisition Deskbook (DAD)

- An electronic, searchable data base of significant acquisition reference materials.
- Available both on CD-ROM (quarterly) and on-line on the internet at www.deskbook.xxxxxxxx.
- Contains laws, regulations, policy requirements, Executive Orders, DoD and service instructions, etc.
- Invaluable for any acquisition professional



Market Research (I-Mart)

- **Part of DoD's Commercial Advocate's Forum**
- **Contains links to key commercial/industry websites based on commodity type or general business research databases**
- **Searchable**
- **Useful for both technical and contracting communities**



Acquisition Streamlining and Standardization Information SysTem (ASSIST)

- **On-line database system at Defense Printing Service in Philadelphia**
- **Up-to-date status of Mil StdS/Specs; Performance Specs; canceled and waived specs; CIDs, and Commercial Standards approved for DoD use**
- **Available to all registered “.mil” domain users.**



SPECRITE

A Tool for Writing Performance-Based Specifications

- **Generates a performance-based specification**
- **User inputs unique specification items**
- **Program adds “boiler plate language”**
- **Follows MIL-STD 961D format**
- **Output is a WordPerfect 5.1 document**
- **Downloadable from Internet**



Program Manager's Workstation

- **Aids Program Managers/PM Staff in the requirements determination, risk assessment, cost analysis, and management of ACAT I-IV level programs**
- **Integrates other tools (e.g., Best Manufacturing Practices databases, TRIMS, SPECRITE, etc.)**
- **Based on DoDI 5000.1/.2 requirements**



Notes



Notes



Notes



Notes